

CYGNETT PTY LTD

# TEST REPORT

**SCOPE OF WORK**

SAR Assessment– CY5138WIRDE

**REPORT NUMBER**

240829027SZN-002

**ISSUE DATE**

05 November 2024

**[REVISED DATE]**

[-----]

**PAGES**

8

**DOCUMENT CONTROL NUMBER**

RF Exposure

© 2017 INTERTEK



## Test Report

Applicant : CYGNETT PTY LTD  
Level 1, 858 Lorimer Street, Port Melbourne VIC 3207  
Australia

Manufacturer : CYGNETT PTY LTD  
Level 1, 858 Lorimer Street, Port Melbourne VIC 3207  
Australia

FCC ID : 2AEDZCY51XXWIRDE

Sample Description  
Product : Voyager Qi2.0 MagTravel 2-in-1 Travel Charger

Model No. : CY5138WIRDE

Electrical Rating : USB-C Input: 5.0Vdc 3.0A(15.0W), 9.0Vdc 3.0A(27.0W)  
Wireless Output1: 15.0W Max  
Wireless Output2: 5.0W Max  
Total Output:20.0W Max

Date Received : 29 August 2024  
Date Test Conducted : 29 August 2024 to 12 September 2024

Test Requested : Test for compliance with CFR 47 part 1  
Test Method : Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310  
KDB 680106 D01 Wireless Power Transfer v04

Test Result : Pass  
Conclusion : When determining of test conclusion, measurement uncertainty of tests have been considered.

\*\*\*\*\* End of Page \*\*\*\*\*

**Prepared and Checked By:**

**Approved By:**

**Karot Huang**  
Assistant Engineer

**Johnny Wang**  
Project Engineer  
Date: 05 November 2024

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

**Intertek Testing Services Shenzhen Ltd. Longhua Branch**

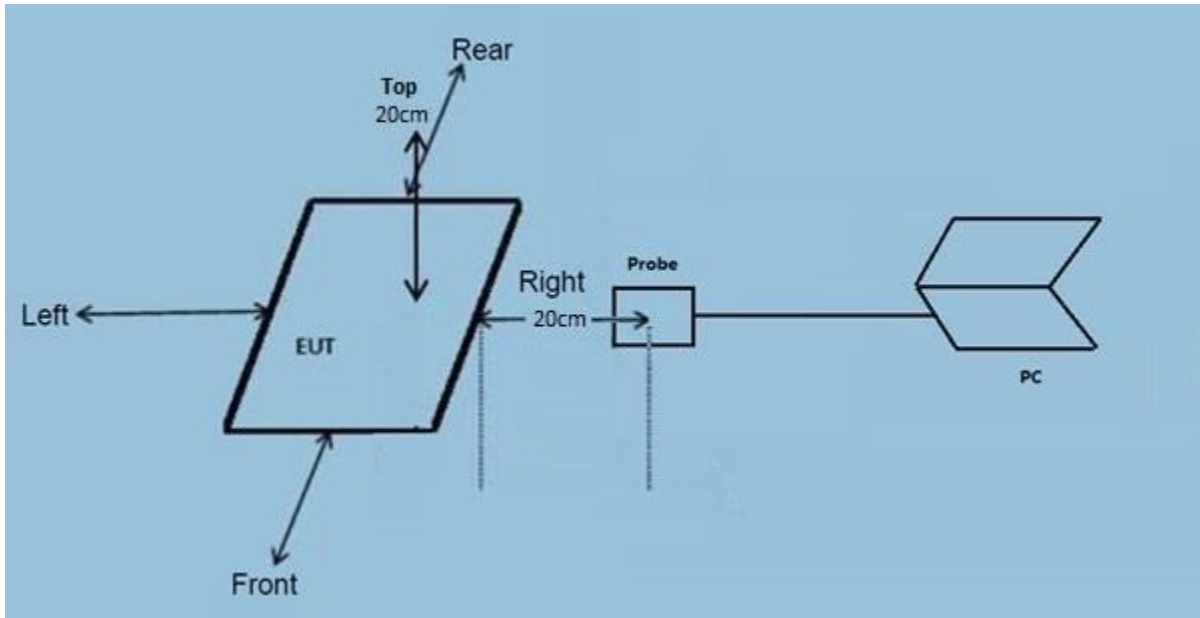
101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community, GuanHu Subdistrict, LongHua District, ShenZhen.

Tel: (86 755) 8601 6288

Fax: (86 755) 8601 6751

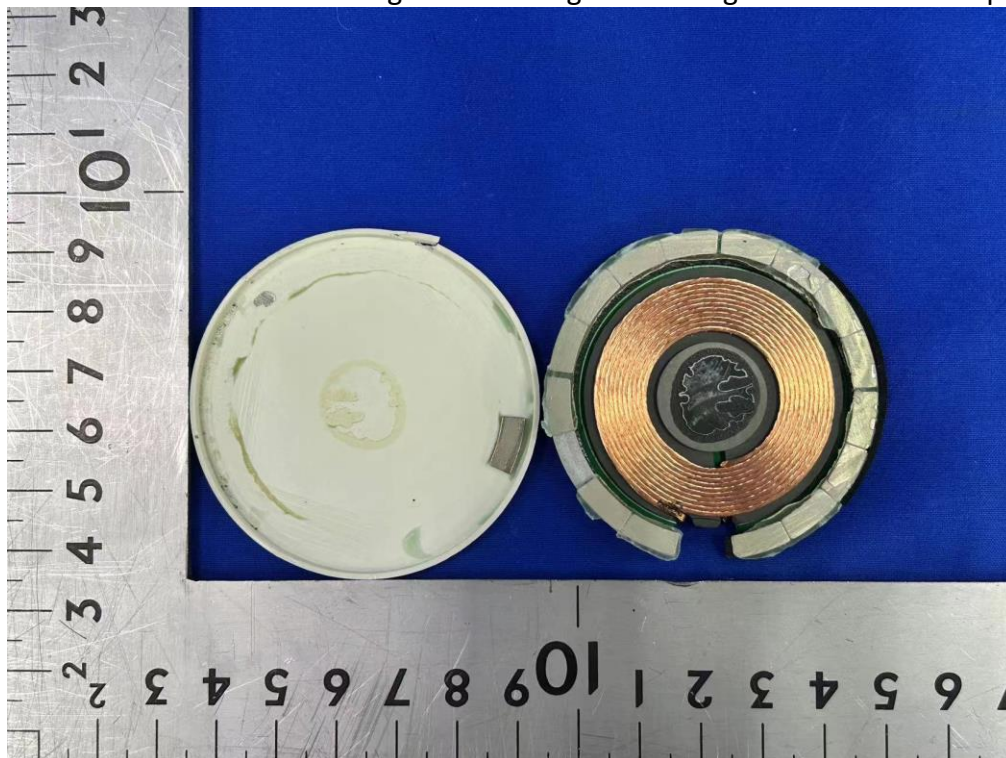
## Test Report

### Test Setup Configuration

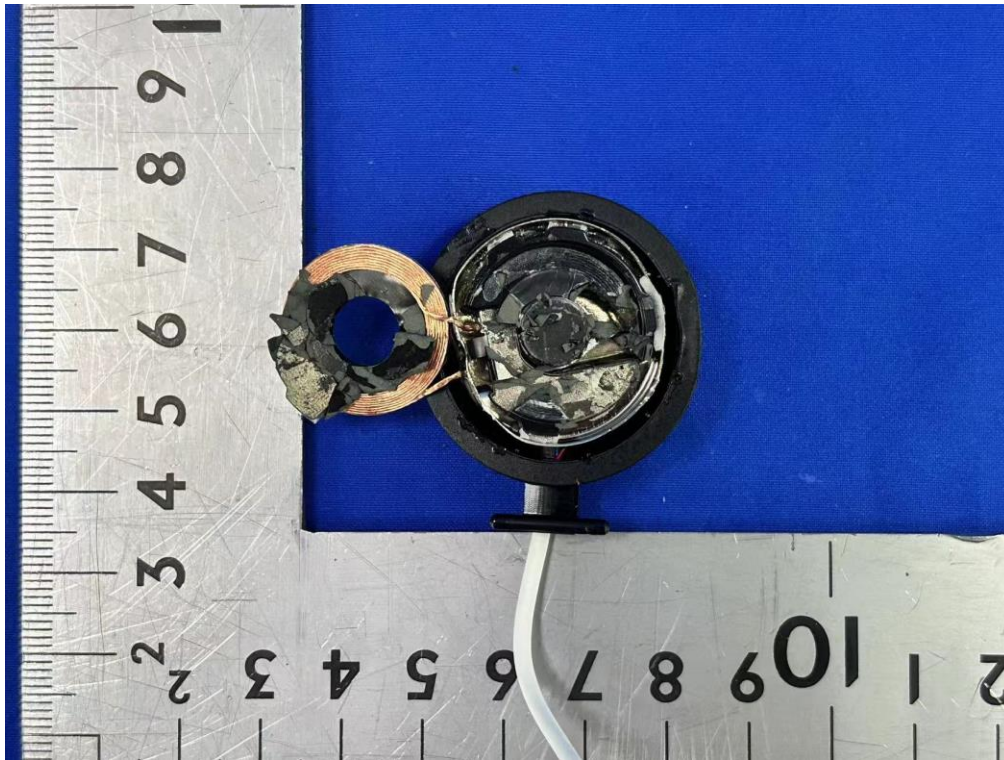


#### Note:

- The RF exposure test is performed in the shield room.
- The test distance is between the edge of the charger and the geometric centre of probe.



iPhone Wireless Charger Coil



Apple Watch Wireless Charger Coil

**Test Equipment List**

Equipment No.	Equipment	Manufacturer	Model No.	Cal. Date	Due Date
SZ186-06	The Magnetic Amplitude and Gradient Probe System	SPEAG	MAGPy-8D3D+E3D	2024-03-07	2025-03-07

**This product was tested in the following configuration:**

Description	Manufacturer	Detail
Mobile phone	Apple (Provided by Intertek)	Model: A2884
Apple Watch	Apple (Provided by Client)	Model: A2980
Adapter	Shenzhen Yajingyuan Technology Co., Ltd. (Provided by Client)	Model: CD226 Input: 100-240Vac 50/60Hz 2.3A Output: 5Vdc 3A, 9Vdc 3A, 12Vdc 3A, 15Vdc 3A, 20Vdc 5A
USB Cable	NIL (Provided by Client)	1m, unshielded

**Test Facility**

The Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data are Intertek Testing Services Shenzhen Ltd. Longhua Branch and located at 101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community, GuanHu Subdistrict, LongHua District, ShenZhen. This test facility and site measurement data have been fully placed on file with File Number: CN1188.

**Justification**

The EUT was powered by an adapter with 120V/60Hz input during the test. All power input voltages (DC 5V=3A, 9V=3A) and all rated output powers have been tested. And have considered all the following EUT modes of operation to pre-scan the test system.

Pertest mode	Description
Mode 1	Standby mode
Mode 2	iPhone is charging at 1% battery power
Mode 3	iPhone is charging at 50% battery power
Mode 4	iPhone is charging at 99% battery power
Mode 5	Apple Watch is charging at 1% battery power
Mode 6	Apple Watch is charging at 50% battery power
Mode 7	Apple Watch is charging at 99% battery power
Mode 8	iPhone+Apple Watch are charging at 1% battery power
Mode 9	iPhone+ Apple Watch are charging at 50% battery power
Mode 10	iPhone+ Apple Watch are charging at 99% battery power

**Reference Limit:**

**Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310**

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation.

**LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

Frequency Range (MHz)	Electric Field strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3 – 1.34	614	1.63	(100) *	30

Note: \* = Plane wave equivalent power density

**Test Result:**

**During test, the iPhone and iWatch are being charged.**

**The result for iPhone wireless power transmit part:**

**H-field strength measurement result at 20 cm:**

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Limits (A/m)
0.360	1% Battery Level	0.01	0.01	0.01	0.01	0.1	1.63
0.360	50% Battery Level	0.01	0.01	0.01	0.01	0.03	1.63
0.360	99% Battery Level	0.01	0.01	0.01	0.01	0.02	1.63
0.360	Stand-by	0.01	0.01	0.01	0.01	0.01	1.63

**E-field strength measurement result at 20 cm:**

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Limits (V/m)
0.360	1% Battery Level	0.46	0.47	0.38	0.76	0.11	614
0.360	50% Battery Level	0.14	0.11	0.27	0.49	0.08	614
0.360	99% Battery Level	0.10	0.05	0.13	0.37	0.04	614
0.360	Stand-by	0.04	0.03	0.09	0.11	0.03	614

The result for Apple Watch wireless power transmit part:

H-field strength measurement result at 20 cm:

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Limits (A/m)
0.3265	1% Battery Level	0.01	0.01	0.01	0.01	0.02	1.63
0.3265	50% Battery Level	0.01	0.01	0.01	0.01	0.01	1.63
0.3265	99% Battery Level	0.01	0.01	0.01	0.01	0.01	1.63
0.3265	Stand-by	0.01	0.01	0.01	0.01	0.01	1.63

E-field strength measurement result at 20 cm:

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Limits (V/m)
0.3265	1% Battery Level	0.07	0.15	0.55	0.55	0.82	614
0.3265	50% Battery Level	0.14	0.55	0.26	0.14	0.11	614
0.3265	99% Battery Level	0.10	0.31	0.18	0.08	0.07	614
0.3265	Stand-by	0.05	0.12	0.10	0.06	0.06	614

H-field strength measurement result at 20 cm:

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Limits (A/m)
1.778	1% Battery Level	0.01	0.01	0.01	0.01	0.01	1.63
1.778	50% Battery Level	0.01	0.01	0.01	0.01	0.01	1.63
1.778	99% Battery Level	0.01	0.01	0.01	0.01	0.01	1.63
1.778	Stand-by	0.01	0.01	0.01	0.01	0.01	1.63

**E-field strength measurement result at 20 cm:**

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Limits (V/m)
1.778	1% Battery Level	0.08	0.06	0.07	0.10	0.07	614
1.778	50% Battery Level	0.05	0.04	0.05	0.09	0.04	614
1.778	99% Battery Level	0.03	0.01	0.01	0.03	0.01	614
1.778	Stand-by	0.02	0.01	0.01	0.02	0.01	614

For this device, iPhone wireless charger and Apple Watch wireless charger can work simultaneously.

**H-Field Strength:**

The worst case H-field strength for simultaneous transmitting(360kHz and 326.5kHz) are  $0.1/1.63 + 0.02/1.63 = 0.0736 < 1$ .

The worst case H-field strength for simultaneous transmitting(360kHz and 1.778MHz) are  $0.1/1.63 + 0.01/1.63 = 0.0675 < 1$ .

**E-Field Strength:**

The worst case E-field strength for simultaneous transmitting(360kHz and 326.5kHz) are  $0.76/614 + 0.82/614 = 0.0026 < 1$ .

The worst case E-field strength for simultaneous transmitting(360kHz and 1.778MHz) are  $0.76/614 + 0.08/614 = 0.0014 < 1$ .



**Configuration photo of the test:**

Please refer to RF Exposure setup photos. pdf.

\*\*\*\*\* End of Report\*\*\*\*\*